WHAT IS CLAIMED IS:

1. A semiconductor device of a resin-sealed type comprising:

a thin film wiring board which supports a semiconductor chip, with cutout portions being formed in peripheral edge portions of the thin film wiring board, and which is deformable following shrinkage on curing of a molding resin;

a conductive member for connecting each surface electrode on the semiconductor chip with the thin film wiring board;

a sealing portion which is constituted by the molding resin and which seals the semiconductor chip and the conductive member with resin, the sealing portion having a sealing body portion formed on a chip bearing surface of the thin film wiring board and sealing end portions located in the cutout portions of the thin film wiring board; and

a plurality of bump electrodes as external terminals formed on the side opposite to the chip bearing surface of the thin film wiring board.

2. A semiconductor device of a resin-sealed type comprising:

a thin film wiring board which supports a semiconductor chip, with cutout portions being formed in corner portions of the thin film wiring board, and which is

deformable following shrinkage on curing of a molding resin;

a conductive member for connecting each surface electrode on the semiconductor chip with the thin film wiring board;

a sealing portion which is constituted by the molding resin and which seals the semiconductor chip and the conductive member with resin, the sealing portion having a a sealing body portion formed on a chip bearing surface of the thin film wiring board and sealing end portions located in the cutout portions of the thin film wiring board; and

a plurality of bump electrodes as external terminals formed on the side opposite to the chip bearing surface of the thin film wiring board.

3. A semiconductor device of a resin-sealed type comprising:

a thin film wiring board which supports a semiconductor chip, with thin-walled portions being formed in peripheral edge portions of the thin film wiring board, and which is deformable following shrinkage on curing of a molding resin;

a conductive member for connecting each surface electrode on the semiconductor chip with the thin film wiring board;

a sealing portion which is constituted by the molding

resin and which seals the semiconductor chip and the conductive member with resin, the sealing portion having a sealing body portion formed on the chip bearing surface of the thin film wiring board and sealing end portions bonded to the thin-walled portions of the thin film wiring board; and

a plurality of bump electrodes as external terminals formed on the side opposite to the chip bearing surface of the thin film wiring board.

4. A semiconductor device of a resin-sealed type according to claim 2, wherein convex portions are formed on peripheral edge portions of the chip bearing surface of the thin film wiring board and are bonded to the sealing end portions.

5. A semiconductor device of a resin-sealed type according to claim 2, wherein concave portions are formed in peripheral edge portions of the chip bearing surface of the thin film wiring board and are bonded to the sealing end portions.

6. A semiconductor device of a resin-sealed type comprising:

a thin-film wiring board which supports a semiconductor chip, with cutout portions and thin-walled portions being formed in peripheral edge portions of the thin film wiring board, and which is deformable following

shrinkage on curing of a molding resin;

a conductive member for connecting each surface electrode on the semiconductor chip with the thin film wiring board;

a sealing portion which is constituted by the molding resin and which seals the semiconductor chip and the conductive member, the sealing portion having a sealing body portion formed on a chip bearing surface of the thin film wiring board and sealing end portions located in the cutout portions and the thin-walled portions of the thin film wiring board; and

a plurality of bump electrodes as external terminals formed on the side opposite to the chip bearing surface of the thin film wiring board.

7. A semiconductor device of a resin-sealed type comprising:

a thin film wiring board which supports a semiconductor chip, with cutout portions being formed in corner portions of the thin film wiring board and thin-walled portions formed in peripheral edge portions of the thin film wiring board, and which is deformable following shrinkage on curing of a molding resin;

a conductive member for connecting each surface electrode on the semiconductor chip with the thin film wiring board;

a sealing portion which is constituted by the molding resin and which seals the semiconductor chip and the conductive member with resin, the sealing portion having a sealing body portion formed on a chip bearing surface of the thin film wiring board and sealing end portions located in the cutout portions and the thin-walled portions of the thin film wiring board; and

a plurality of bump electrodes as external terminals formed on the side opposite to the chip bearing surface of the thin film wiring board.

8. A semiconductor device of a resin-sealed type according to claim 7, wherein convex portions are formed in peripheral edge portions of the chip bearing surface of the thin film wiring board and are bonded to the sealing end portions.

9. A semiconductor device of a resin-sealed type according to claim 7, wherein concave portions are formed in peripheral edge portions of the chip bearing surface of the thin film wiring board and are bonded to the sealing end portions.

10. A semiconductor device of a resin-sealed type according to claim 7, wherein concave and convex portions are formed in peripheral edge portions of the chip bearing surface of the thin film wiring board.

11. A semiconductor device of a resin-sealed type

according to claim 2, wherein the thin film wiring board is a film substrate formed of a polyimide.

12. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of partitioned device areas;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, thereby forming a sealing portion; and

causing a cutting blade to advance from the thin film wiring board side to cut and divide the wiring board device area by device area in accordance with a down cutting method.

13. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of partitioned device areas;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, thereby forming a sealing portion; and

dividing the thin film wiring board device area by device area with a cutting blade in two stages in the first stage of which the blade advances in a direction parallel to one arrangement direction of the device areas on the film base substrate and in the second stage of which the blade advances in a direction perpendicular thereto.

14. A method of manufacturing a semiconductor device according to claim 13, wherein the thin film wiring board is divided by the blade in accordance with a combined method of a down cutting method and an up cutting method.

15. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of partitioned device areas;

mounting semiconductor chips respectively on the

device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, thereby forming a sealing portion; and

dividing the thin film wiring board device area by device area with a cutting blade in two stages in the first stage of which the blade advances in a direction parallel to one arrangement direction of the device areas on the film base substrate and in the second stage of which the blade advances in a direction perpendicular thereto,

wherein in the substrate dividing operation performed in two stages, the first-stage operation is performed by combining a down cutting method and an up cutting method in an alternate manner, while the second-stage operation is performed by only a down cutting method.

16. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of device areas partitioned by partition lines, the partition lines serving also as

cutting allowances;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, thereby forming a sealing portion; and

causing a cutting blade to advance from the thin film wiring board side and move along the cutting allowances to cut and divide the wiring board device area by device area.

17. A method of manufacturing a semiconductor device according to claim 16, wherein the width of each of the cutting allowances on the thin film wiring board is equal to the width of the blade.

18. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of device areas partitioned by partition lines, with a plurality of through holes being formed in the partition lines;

mounting semiconductor chips respectively on the

device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, while allowing the molding resin to get into the through holes in the thin film wiring board; and

causing a cutting blade to advance from the thin film wiring board side to cut the wiring board along the through holes formed in the partition lines and divide the wiring board device area by device area.

19. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of device areas partitioned by partition lines, with through holes being formed in corner portions of the partition lines;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas by means of conductive members ;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, while allowing the molding resin to get into the through holes in the thin film wiring board; and

causing a cutting blade to advance from the thin film wiring board side to cut the wiring board along the through holes formed in the corner portions of the partition lines and thereby divide the wiring board device area by device area.

20. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of device areas partitioned by partition lines, with thin-walled portions being formed in the partition lines;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, while allowing the molding resin to be placed

on the thin-walled portions; and

causing a cutting blade to advance from the thin film wiring board side to cut the wiring board along the thin-walled portions formed in the partition lines and thereby divide the wiring board device area by device area.

21. A method of manufacturing a semiconductor device, comprising the steps of:

providing a thin film wiring board which is deformable following shrinkage on curing of a molding resin and which has a plurality of device areas partitioned by partition lines, the partition lines serving also as cutting allowances and with through holes being formed in corner portions of the partition lines;

mounting semiconductor chips respectively on the device areas;

connecting surface electrodes on the semiconductor chips with corresponding electrodes in the device areas;

sealing the semiconductor chips and the conductive members with resin so as to cover the plural device areas in a lump on the chip bearing surface side of the thin film wiring board, while allowing the molding resin to get into the through holes formed in the thin film wiring board; and

causing a cutting blade to advance from the thin film wiring board side to cut the wiring board along the cutting allowances and the through holes and thereby divide the

wiring board device area by device area.

22. A method of manufacturing a semiconductor device according to claim 21, wherein the thin film wiring board is divided with the cutting blade in two stages in the first stage of which the blade advances in a direction parallel to one arrangement direction of the device areas on the thin film wiring board and in the second stage of which the blade advances in a direction perpendicular thereto, the first-stage operation being performed by combining a down cutting method and an up cutting method and the second-stage operation performed by only a down cutting method.

23. A method of manufacturing a semiconductor device according to claim 12, wherein the thin film wiring board is constituted by a film substrate of a polyimide.

24. A semiconductor device comprising:

a film substrate capable of being deformed following shrinkage on curing of a molding resin;

a semiconductor chip mounted on a first surface of the film substrate;

an external terminal exposed onto a second surface opposite to the first surface of the film substrate and connected electrically with the semiconductor chip;

cutout portions formed in corner portions of the film substrate; and

a molding resin which seals the semiconductor chip and which is exposed onto the second surface of the film substrate through the cutout portions.

25. A method of manufacturing a semiconductor device of a resin-sealed type, comprising the steps of:

(a) providing a film substrate, the film substrate comprising a film capable of being deformed following shrinkage on curing of a molding resin, wiring formed on the film, a plurality of device areas, and through holes formed in the film at corner positions of each of the plural device areas;

(b) mounting semiconductor chips respectively on the device areas of the film substrate and connecting the semiconductor chips with the film substrate electrically;

(c) sealing the semiconductor chips and the interiors of the through holes with resin; and

(d) cutting the film substrate into individual semiconductor devices with a cutting blade.